

**Draft
Environmental Impact Report/
Environmental Assessment**

**State Route 138 Widening Project
From Avenue T to State Route 18
Junction Through
the Communities of Littlerock,
Pearblossom, Llano and the City of
Palmdale**

SCH Number: 1998091007



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3.0 Affected Environment

3.1 Topography

The proposed project will occur in the Southern California northeastern portion of the Mojave Desert region in the Antelope Valley. The area ranges in altitude from 2450 ft (742 m) to 3200 ft (975 m) with the surrounding mountain rising up to 4000 ft (1211 m). The San Gabriel Mountains binds the region to the north and the Sierra Pelona Mountains on the Southwest. The topography varies from flat with occasional drainage's and sand dunes on the valley floor to steep foothill mountain areas on the south. The San Andreas Fault transverses the project limits parallel and just north of the mountains. The area surrounding State Route 138 is a flat terrain.

3.2 Geology and Soils

The project site is located northerly of the San Bernardino Mountains. The geologic profile situated beneath State Route 138 is composed of three types of strata. The surface stratum being alluvium and older alluvium, underlying the alluvium are the Punchbowl Formation of Cajon Valley, and the basement rock formation being metamorphic rock of gneiss, which locally contains undeformed to slightly deformed plutonic rocks. In Palmdale consolidated rocks make up the mountains and rocky buttes while alluvial soils are found on streambeds and the valley floor. Pelona schist underlies most of the mountainous portions of Palmdale. Situated beneath the alluvial soil lies the same hard rocks found in the mountain areas.

Older alluvium deposits consist of sand, gravel silt, and boulders characterized by their ability to store and yield water. Younger alluvium deposits make up the alluvial fans found at the base of the San Gabriel Mountains.

3.2.1 Faults

The project site is situated in an active seismic region that is located less than 3 miles (3.82 km) northerly of the San Andreas Fault Zone. The San Andreas Fault is the boundary where the North American plate and the Pacific plate meet. The source of seismic activity is related to the tectonic activity of the right lateral movement of the Pacific Plate relative to the North American Plate. Relative movement along these plates boundaries is what causes earthquakes in this area. The San Andreas Fault extends over 600 miles (965.4 km) from the Salton Sea, northwest toward the Pacific Ocean at Point Arena. The San Andreas Fault system has several fault traces branch off the primary fault.

Active branches of the San Andreas Fault system in the Palmdale area are the Cemetery Fault, the Nadeau Fault, and the Littlerock Fault. Any movement from the San Andreas Fault may activate one or all of the subsidiary faults.

3.2.2 Mining

One of the predominant uses of land in the City of Palmdale and surrounding areas involves mining, which consists of sand and gravel operations. There are six mining operations located along the Little Rock Wash on the eastern edge of the City. In addition, there are six concrete batching operations,

three asphalt batching operations and one concrete pipe manufacturer located within the Little Rock Wash area.

3.3 Water Resources

3.3.1 Hydrology

The largest waterways within the project area include Little Rock Wash, Big Rock Wash and the California Aqueduct which run generally north and northeast across the project lands toward the Rosamond and Rogers dry lakes. Thunderstorms are common, but washes are dry during much of the year. The California Aqueduct is channelized and flows year round. The Antelope Valley is a natural inland basin within the southwestern Mojave Desert. The groundwater system consists of an upper and lower aquifer covering 900 square miles (1448 km) separated vertically by silt and clay deposits from when an inland lake covered the valley that is also called a lacustrine deposit. The uplifting of the San Gabriel and the Sierra Pelona Mountain Ranges, the Tehachapi Mountains, and the Soleda Mountain upland created the aquifers in the Antelope Valley. The upper aquifer overlies the lacustrine deposits and supplies all water pumped from wells in the Antelope Valley. The lower aquifer underlies these deposits. Water moves downward from the upper aquifer to the lower aquifer on the western and southern limits of the lacustrine deposits.

Although a constant water flow within the California Aqueduct is maintained year-round, little riparian vegetation was noted in close proximity to the concrete lined channel. Little riparian vegetation was also noted at the Big Rock Wash Bridge area as well. In contrast, the Little Rock Wash area contains an extensive, diverse, dense riparian habitat.

Big Rock Wash is an intermittent stream that flows between the Angeles National Forest and the Antelope Valley. Near Highway 138, the wash is mostly unvegetated, except for limited alluvial scrub vegetation. Big Rock contains two channels separated by a 200-foot (61.38 m) island. Levees constructed from alluvial material line the wash immediately upstream and downstream of the bridges.

3.3.2 Water Quality

The chemical quality of the groundwater in the Antelope Valley Basin is generally satisfactory for domestic use and irrigation, as well as for most commercial and industrial uses. The levels of total dissolved solids generally range from 200 to 800 parts per million with concentrations of up to 2,600 parts per million near Rosamond and Rogers Playa. Although present quality is satisfactory, there is a slow trend toward reduced groundwater quality, due to increased urban run-off, septic tank failures in the San Gabriel watershed, declining water tables, and an extensive perched water condition in the Lancaster sub-unit of the Antelope Valley Basin. (This sub-unit presently supplies the majority of the pumped water supply in the Basin). Particular water quality problems exist in the Littlerock area. Past nitrate readings in Littlerock Creek Irrigation District (LCID) wells have indicated that such levels will exceed State standards.

3.3.3 Flood Hazards

In the vicinity of State Route 138 there are two floodplain areas, which are of concern. The areas are located at Littlerock Creek Bridge #52-303 (PM 53.57), Big Rock Wash Bridge #53-313 (PM 63.00, KP 101.38) and Big Rock Wash Bridge #53-314 (PM 63.04, KP 101.45).

Large areas of the Antelope Valley are subject to flooding due to weather conditions in the San Gabriel and Sierra Pelona Mountains. In the winter season the rainfall is concentrated and encourages run-off from exposed, highly fractured rocks. The topography of this area results in high velocity erosive flows due to steep canyon slopes and channel gradients which concentrate the rain fall. The flows quickly satisfy soil moisture deficiencies and then spread across alluvial deposits in new channels and/or sheet flow. Flooding in the Antelope Valley is further produced by impervious silt, clay and fine sand located on the desert floor.

Urban development reduces the total ground absorption area by creating impermeable surfaces such as pavement and streets. Storm runoff, increased by the presence of impermeable surfaces, flows from developed areas, contributing to street flooding. The amount and frequency of rain is variable, and although floodwaters may be diverted, the lack of a completed regional drainage system will continue to result in local flooding problems. Rainfall in the area is often in the form of thunderstorms and other fast moving, relatively intense storms, which may cause flash floods. There is a tendency for flash floods in the project area. It is difficult to forecast the force and strength of flash floods and the amount of rain they will produce, so there may be occasional occurrences of floodwater washing over the roadway. Runoff may be anticipated from storm water.

3.3.4 Climate

The climate of the Antelope Valley is dominated by the region's Pacific high-pressure system, which contributes to the area's hot, dry summers and relatively mild winters. The climate is characterized by its wide fluctuation in temperature between day and night. Temperatures in the area average a low of 71 F and a high of 95 F in summer months. During the winter the average low is 36 F and the average high is 58 F. The average annual precipitation is 8 inches in the antelope valley. The climate is characterized by spring being typically mild with cool nights and a tapering of rain showers; the summer months being typically dry, warm-hot, and often breezy; fall being mild, windy and dry with mild days and cool nights; and winter being cold, breezy and moist to wet.

3.4 Biological Resources

3.4.1 Vegetation

In the Antelope Valley there are Four (4) major zones that have distinct vegetative associations. The valley floor zone, the bajadas and plains, the floodplains and drainage courses, and the upper mountain slope zone. The valley floor extends to about 2,400 feet (731.5 m) and is a zone consisting of alkaline playa lakebeds, with compact clay soils and very little vegetation other than saltbushes (*Atriplex spp.*) and other salt tolerant species. The bajadas and plains are gently sloping alluvial fans extending from the nearby mountain ranges (below 4,000 feet, 1219.2 m) to the floor of the basin. Species associated with these well drained areas include creosote bush (*Larrea tridentata*), cheesebush (*Hymenoclea salsola*), burrobrush (*Franseria dumosa*), and Mormon tea (*Ephedra torreyana*). Cacti species (*Opuntia* and *Cereus spp.*) are more common in the drier valley areas and the most conspicuous tree of the bajadas is the Joshua Tree.

The types of vegetation found in the floodplains and concrete lined channels, which would be consistent with the Big Rock and Little Rock creeks, are clumps of desert willow or catalpa (*Chilopsis linearis*) and acacia (*Acacia spp.*) Other species found in this area include: bitterbrush (*Parishia glabulosa*), rabbitbrush (*Chrysothammus spp.*), and goldenbush (*Happlopappus cooperii*).

The vegetation in the higher valley areas consists of clumps of scrub juniper or California Junipers (*Juniperus californica*) present in the Joshua tree woodland areas in the upper elevations. The vegetation in the project area can be classified into five (5) plant communities; the Mojave Creosote Bush Scrub, Mojave Mixed Woody Scrub, Joshua Tree Woodland, Mojave Wash Scrub and Ruderal plant communities.

The following is a description of natural communities and associated plant species observed within the vicinity of the proposed project.

Mojave Creosote Bush Scrub: This plant community is dominant on well-drained secondary soils in relatively flat areas of the western Mojave Desert. Although this plant community is rarely adjacent to developed areas, it is found in the project vicinity. Of the most common species of this plant community, creosote, with sub-dominant species that included lycium (*Lycium spp.*), brittle bush (*Encelia farinosa*), and Mormon tea are present in the vicinity of the proposed project.

Mojave Mixed Woody Scrub: The Mojave Mixed Woody Scrub occurs in areas which are characterized by steep overly-drained soils with extremely low water holding capacity. These sites are scattered throughout the project area. Of the most common species of this plant community, rabbitbrush (*Chrysothamnus nauseosus*), saltbush (*Atriplex spp.*), phacelia (*Phacelia spp.*), and Joshua tree (*Yucca brevifolia*) are present in the vicinity of the proposed project.

Joshua Tree Woodland: Joshua Tree Woodland communities are characterized by higher densities of Joshua Trees and are generally found between higher elevation Juniper Woodland communities and lower elevation Mojave Creosote Bush Scrub Communities. Joshua Tree Woodland communities are interspersed throughout the project area. The most common species of this plant community found in this area are Lycium, cactus (*Opuntia spp.*) and California junipers (*Juniperus californica*).

Mojave Wash Scrub: This type of community is found in the sandy desert washes of the bajadas. Of the most common species of the Mojave Wash Scrub community, saltbush (*Atriplex sp.*), and rabbitbrush (*Chrysothamnus nauseosus*) are present in the vicinity of the proposed project.

Ruderal: Ruderal plant communities are characterized by extremely weedy and substantially degraded habitats that are unable too effectively retard soil erosion and runoff. Ruderal plant communities are present within the project area in sections disturbed by agricultural activities and other developments. Of the most common species of this plant community, several different species of mustards, nonnative grasses and forbs are present in the vicinity of the proposed project, which are considered invasive species.

Table 10 Plants Observed in the Project Vicinity.

Scientific Name	Common Name
<i>Acacia spp.</i>	Acacia
<i>Ambrosia sp.</i>	Ragweed
<i>Amsinckia tessellata</i>	Fiddleneck
<i>Argemone munita</i>	Prickley Poppy
<i>Aster scopulorum</i>	Aster
<i>Asteraceae family</i>	Ambrosia
<i>Atriplex canescens</i>	Four-Wing Saltbush
<i>Atriplex sp.</i>	Saltbush
<i>Baccharis salicifolia</i>	Mulefat
<i>Brassicaceae family</i>	Mustard
<i>Brodiaea pulchella, var. pauciflora</i>	Blue dicks
<i>Bromus rubens</i>	Red Brome
<i>Bromus tectorum</i>	Cheatgrass
<i>Calystegia peirsonii</i>	Pierson's morning glory
<i>Camissonia micrantha</i>	Miniature Sun Cup
<i>Camissonia campestris</i>	Mojave Sun Cup
<i>Canbya candida</i>	Pygmy poppy
<i>Chaenactis fremontii</i>	Pincushion Flower
<i>Chamaesyce albomarginata</i>	Rattlesnake Weed
<i>Chilopsis linearis</i>	Desert willow
<i>Chorizanthe sp.</i>	Spineflower
<i>Chrysothamnus nauseosus</i>	Rabbitbrush
<i>Encelia farinosa</i>	Brittle Bush
<i>Ephedra sp.</i>	Mormon Tea
<i>Eriastrum sp.</i>	Woolstar
<i>Erigonum sp.</i>	Buckwheat
<i>Eriodictyon trichocalyx</i>	Yerba Santa
<i>Eriophyllum confertiflorum</i>	Golden Yarrow
<i>Erodium texanum</i>	Common filaree
<i>Franseria dumosa</i>	Burro-weed
<i>Gilia sp.</i>	Gilia
<i>Glabrata californica</i>	
<i>Haplopappus cooperi</i>	Copper Goldenbush
<i>Hemizonia</i>	Tarweed
<i>Hymenoclea salsola</i>	Burrowbrush
<i>Hymenoclea salsola</i>	Cheese Bush
<i>Juniperus californica</i>	California Juniper
<i>Krascheninnikovia lanata</i>	Winter Fat
<i>Larrea tridentata</i>	Creosote Bush
<i>Lasthenia chrysostoma</i>	Goldfields
<i>Lepidium virginicum, var. robinsonii</i>	Robinson's pepper grass
<i>Linanthus parryae</i>	Parry Gilia

Scientific Name	Common Name
<i>Lycium californicum</i>	Boxthorn
<i>Malacothrix glabrata</i>	Desert Dandelion
<i>Marah macrocarpus</i>	Wild Cucumber
<i>Mirabilis sp.</i>	Four O'Clocks
<i>Myosotis sp.</i>	White Forget-Me-Not
<i>Oenothera deltoides</i>	Dune Primrose
<i>Opuntia basilaris, var. brachyclada</i>	Beavertail Cactus/Short-joint beavertail
<i>Opuntia bigelovii</i>	Jumping Cholla
<i>Opuntia bigelovii</i>	Teddy-Bear Cholla
<i>Opuntia spp.</i>	Prickly Pear
<i>Parishia glabulosa</i>	Bitterbrush
<i>Phacelia distans</i>	Distant Phaceila
<i>Phacelia tanacetifolia</i>	Lady Phacelia
<i>Phacelia vallis-mortae</i>	Death Valley Scorpionweed
<i>Plagiobothrys arizonicus</i>	Popcorn Flower
<i>Poaceae family</i>	Brome Grasses/ Scale broom
<i>Poaceae family</i>	Rice Grass and Others
<i>Rumex</i>	
<i>Salazaria mexicana</i>	Paperbag Bush/ Bladder sage
<i>Salix sp.</i>	Willow
<i>Salsola iberica</i>	Russian Thistle
<i>Solanaceae family</i>	Datura
<i>Stipa sp.</i>	Needlegrass
<i>Tamarix chinensis</i>	Tamarix
<i>Yucca brevifolia</i>	Joshua Tree
<i>Yucca sp.</i>	Yucca
	Anderson Thom
	Bean Flower
	Spencer Primrose
	Yellow Mist

Source: Caltrans District 7: Natural Environment Study January 2000

Sensitive species are flora and fauna protected under state and/or federal endangered species acts. The California Department of Fish and Game (CDFG), and the US Fish and Wildlife Service can also identify sensitive species. In the case of plant species the California Native Plant Society (CNPS) classifies sensitive plants. In the surrounding plant communities there have been a number of sensitive species identified. A list of sensitive species follows:

Sensitive Species

- Pierson's morning glory (*Calystegia peirsonii*)- Federal species of concern and CNPS species of limited distribution.

- Pygmy poppy (*Canbya candida*)- CNPS species that is rare and endangered in California and elsewhere.
- Robinson's pepper grass (*Lepidium virginicum*, var. *robinsonii*)-CNPS species that is rare and endangered in California and elsewhere.
- Short-joint beavertail cactus (*Opuntia basilaris*, var. *brachyclada*)- Federal species of concern and CNPS species that is rare and in California and elsewhere.

3.4.2 Wildlife

The proposed project widening of State Route 138 is going to occur in the southwestern portion of the Mojave Desert. This area of the Mojave Desert is known for its extreme temperature and precipitation. Even with these extreme conditions in the Mojave Desert there is a diverse range of animal life that the local flora can support such as reptiles, birds, invertebrates, and mammals.

The species of animals that may be within the general project vicinity based on either present or historical records include animals such as desert cottontails, panamint kangaroo rats, desert horned lizards, Desert tortoise, Burrowing owl, and Mohave ground squirrel. The Federal Endangered Species Act of 1973 (16 U.S.C. 1531-1543) provides for the conservation of endangered and threatened species and the ecosystems upon which they depend. Some of the species of wildlife in this area are considered to be "sensitive" species that have been identified and/or protected by the U.S. Fish and Wildlife Service (USFWS) and/or the California Department of Fish and game (CDFG). A list of sensitive species follows:

Sensitive Species

The following sensitive species may be present in the vicinity of the proposed project.

- Burrowing owl (*Athene cunicularia*) - Federal species of concern/State species of special concern.
- California horned lizard (*Phrynosoma coronatum frontale*) - Federal species of concern/State species of special concern.
- Desert tortoise (*Gopherus agassizii*) – Federal threatened species/State endangered.
- Le Contes thrasher (*Toxostoma lecontei*) - State species of special concern.
- Mohave ground squirrel (*Spermophilus mohavensis*) – State threatened species/Federal Category 2 (threat and/or distribution are insufficient to support listing).
- Prairie falcon (*Falco mexicanus*) - State species of special concern.
- San Diego horned lizard (*Phrynosoma coronatum blainvillei*)- Federal species of concern/State species of special concern.
- San Joaquin pocket mouse (*Perognathus inornatus inornatus*)-Federal species of concern

3.4.3 Wildlife Corridors

In the area of the proposed project there are wildlife corridors that provide a link between wildlife habitats. The most important areas for concern are the corridors that are located at Little Rock Wash, and Big Rock Wash. The County of Los Angeles in the Antelope Valley Areawide General Plan identified the Wildlife Corridors and Significant Ecological Areas (SEA's) as:

Desert washes: desert washes areas are critical wildlife habitat and migration corridors: these areas have greater species diversity and the corridors function as an effective means of seed dispersal for many desert plants, and as such, are important to the stability of many of the desert ecosystems.

According to the 1986 General Plan, Little Rock Wash is the largest and least disturbed habitat of this type in Los Angeles County.

Desert-Montane Transect: The Desert-Montane transect is located within the project area along the eastern edge of Los Angeles County. This is an important transitional area between the Mojave Desert and the northern slopes of the San Gabriel Mountains. The mix of desert and Montane habitats make this area one of the most diverse in the county, as well as one of the largest undisturbed areas outside of the Angeles National Forest.

Desert Buttes: Although these buttes are north of the State Route 138 corridor, it is possible that wildlife may migrate through the State Route 138 study area to/from the buttes, e.g., Little Rock Wash and Big Rock Wash represent major wildlife corridors in this area. The Buttes are characterized as having substantially more biotic diversity relative to the surrounding areas and are ecologically valuable habitats to many desert-dwelling species. Most butte areas are potential habitat for the Mohave ground squirrel (*Spermophilus mohavensis*), a species protected by the state.

3.4.4 Wetlands

A wetland delineation and assessment for the areas adjacent to the current alignment of State Route 138 in Los Angeles County were prepared for this project. Previous surveys within the project area were conducted by windshield surveys and walking where the larger drainages crossed under State Route 138. This background knowledge was used to determine which drainage's needed further study. A Federal wetland is defined by meeting three criteria (hydrology, hydric soils, and hydrophytic vegetation) set by the U.S. Army Corps of Engineers and Environmental Protection Agency. A State wetland is defined by meeting one of the three criteria. The majority of the culverts in the project area do not meet the three criteria. Many of the culverts may meet one of the three criteria, typically the hydrology criteria, which would classify them as a state wetland, but would not be classified as a Federal wetland.

Within the proposed project area along State Route 138, three locations were chosen for further investigation to determine if the three criteria for a federal wetland were present. These sites were chosen because the conditions indicate the possibility of meeting the three criteria mentioned. The three locations of the wetland delineation's included were State Route 138 crosses Little Rock Wash, Big Rock Wash, and near the State Route 138 and State Route 18 junction.

3.5 Air Quality Characteristics

The Antelope Valley lies within the Southeast Desert Air Basin (SEDAB). The Colorado River binds the air basin to the east, the crest of the San Bernardino, San Gabriel, and San Jacinto Mountains to the south and west, and the northern Kern County boundary to the north.

In the Antelope Valley the SEDAB air mass interacts with the air mass from the South Coast Air Basin which contains high levels of emissions and reacted air pollutants that originate from vehicular, commercial and industrial sources in Los Angeles, Orange, Riverside and San Bernardino counties. During the summer the polluted air from the South Coast Air Basin moves north into the Antelope Valley with emissions that exceed the National Ambient Air Quality Standards (NAAQS). Different physical factors can affect the air quality on any given day. The physical factors that can affect air quality are topography, wind patterns, average wind speeds and the frequency with which temperature inversions occur in the affected area.

The State and Federal governments have established levels for a number of pollutants to protect public health and well being. The State and Federal governments have identified four pollutants that affect the Antelope Valley, ozone, Carbon Monoxide, Nitrogen Oxides and Particulate Matter which is small particulates less than 10-microns in size (PM₁₀) and they are being monitored at the Lancaster station that is part of the South Coast Air Quality Management District.

The adopted strategies and methods for enhancing the county's air quality are listed in the Air Quality Management Plan. These measures should be implemented through conditions of approval of discretionary entitlements and the goals, policies and programs of the General Plan.

Ozone

The surrounding communities in the Antelope Valley exceeded the State Ambient Air Quality Standards for ozone. The State standard for ozone is 0.09 parts per million (ppm) for a period of one hour and the National standard is 0.12 ppm for a period of 1 hour. Table 11 shows the last three years and the number of days with the Maximum ppm the standards have been exceeded.

**Table 11 Highest 4 Daily Maximum Hourly Ozone Measurements
& Number of Days above the Hourly Standards
at Lancaster-W Pondera Street
parts per million (ppm)**

	1997		1998		1999	
High	Jun 18	0.123	Jul 16	0.164	Jun 29	0.097
2nd High	May 30	0.118	Jun 29	0.139	Jun 30	0.093
3rd High	Aug 6	0.112	Jul 18	0.139	Jun 18	0.089
4th High	Aug 7	0.107	Jul 17	0.137	May 8	0.087
*Days > State Standard		14		2		1
*Days > Nat'l Standard		0		8		0
**Year Coverage		67		98		61

Source: California Air Resource Board

* The number of days at least one measurement was greater than the level of the state hourly standard (0.09 parts per million) or the national hourly standard (0.12 parts per million). The number of days above the standard is not necessarily the number of violations of the standard for the year.

** Year Coverage is an indicator of how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available.

An area is in nonattainment of the national ozone standard if a maximum hourly concentration exceeds the health-based standard of 0.12 parts per million (12 parts per hundred million) on more than three days in the past three years. A concentration greater than 0.12 parts per million is called an "adverse level."

Figure 7 shows the nonattainment areas for California

Carbon Monoxide

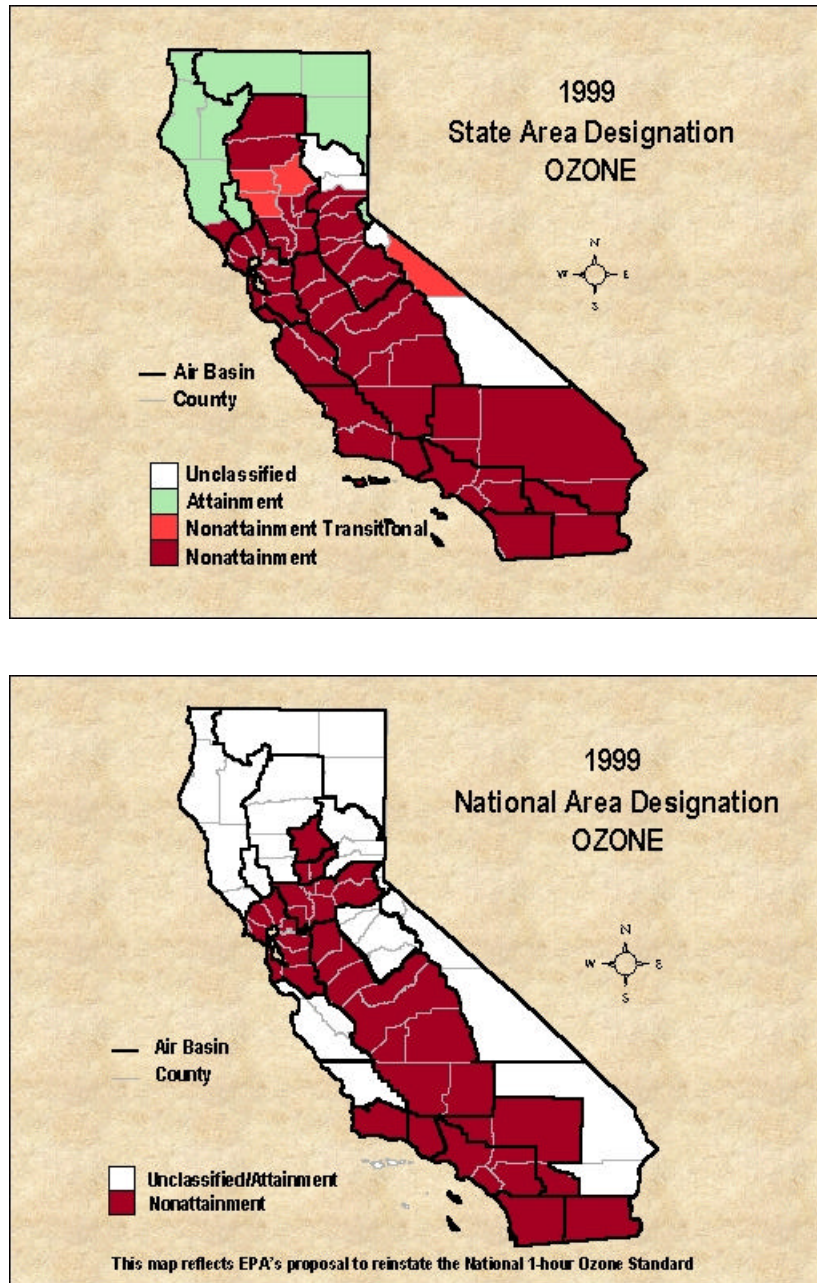
Carbon Monoxide levels in the Antelope Valley have been below State Ambient Air Quality Standards. Carbon monoxide (CO) gas is formed as the result of incomplete combustion of fuels and waste materials such as gasoline, diesel fuel, wood, and agricultural debris. Mobile sources generate over 80 percent of the statewide CO emissions. Diesel-powered, on-road vehicles are small CO

contributors. Stationary and area-wide sources of CO are the same types of fuel combustion sources that also generate NO_x. The stationary source contribution to statewide CO is small, due in part to widespread use of natural gas as a fuel and the presence of combustion controls.

The carbon monoxide levels for the past three years are shown in Table 12. Figure 8 shows that the project area is in an attainment for Carbon Monoxide.

Particulate Matter

The levels of Particulate Matter (PM₁₀) have also exceeded the State Ambient Air Quality Standards. The major source of Particulate Matter in the Antelope Valley is due to wind blown dust as a major source of emission. Table 13 has the last three years levels. Figure 9 shows the Statewide and National designation for PM₁₀. The project area is in a state nonattainment area.



Source: California Air Resources Board 1999

FIGURE 7 STATE AND NATIONAL AREA OZONE ATTAINMENT/NONATTAINMENT AREAS

**Table 12 Highest 4 Daily Maximum 8-Hour Carbon Monoxide Averages
& Number of Days Above the 8-hour Standards
at Lancaster-W Pondera Street
parts per million (ppm)**

	1997		1998		1999	
High	Dec 30	3.99	Dec 30	3.59	Jan 6	5.41
2nd High	Nov 4	3.96	Nov 14	3.56	Jan 2	3.99
3rd High	Dec 27	3.89	Nov 20	3.43	Jan 5	3.91
4th High	Nov 25	3.75	Dec 29	3.14	Jan 4	3.74
*Days > State Standard		0		0		0
*Days > Nat'l Standard		0		0		0
**Year Coverage		100		99		36

Source: California Air Resource Board

* The number of days at least one non-overlapping 8-hour average was greater than the level of the state 8-hour standard (9.0 parts per million) or the national 8-hour standard (9 parts per million). The number of days above the standard is not necessarily the number of violations of the standard for the year.

** Year Coverage is an indicator of how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available.

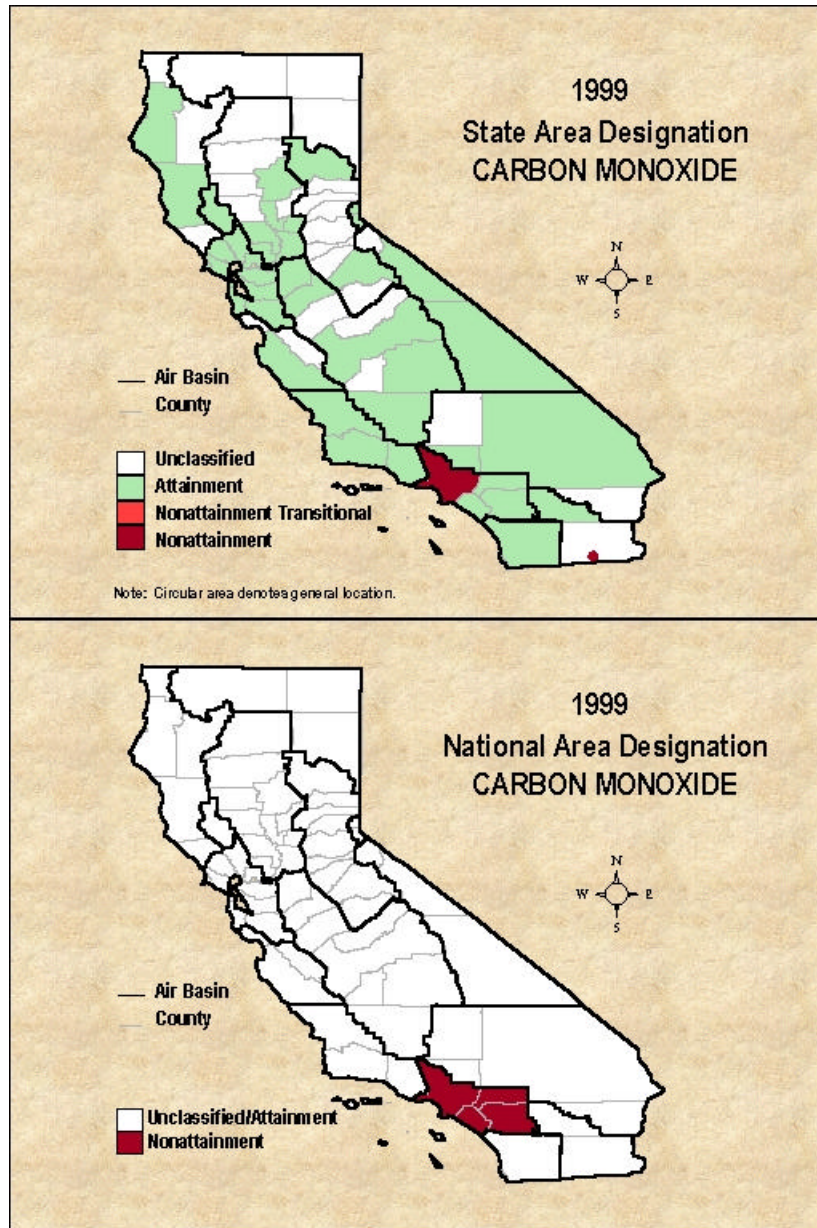
**Table 13 Highest 4 Daily PM₁₀ Measurements and Annual PM₁₀ Statistics
At Lancaster-W Pondera Street
parts per million (ppm)**

	1997		1998		1999	
High	Feb 27	54.0	Dec 31	80.0	Dec 2	85.0
2nd High	May 22	52.0	Apr 27	58.0	Jan 6	51.0
3rd High	Aug 8	46.0	Apr 17	48.0	May 6	44.0
4th High	Feb 15	45.0	Jul 16	46.0	Jun 23	40.0
*Days > State Standard		2		2		1
*Days > Nat'l Standard		0		0		0
**Year Coverage		94		85		26

Source: California Air Resource Board

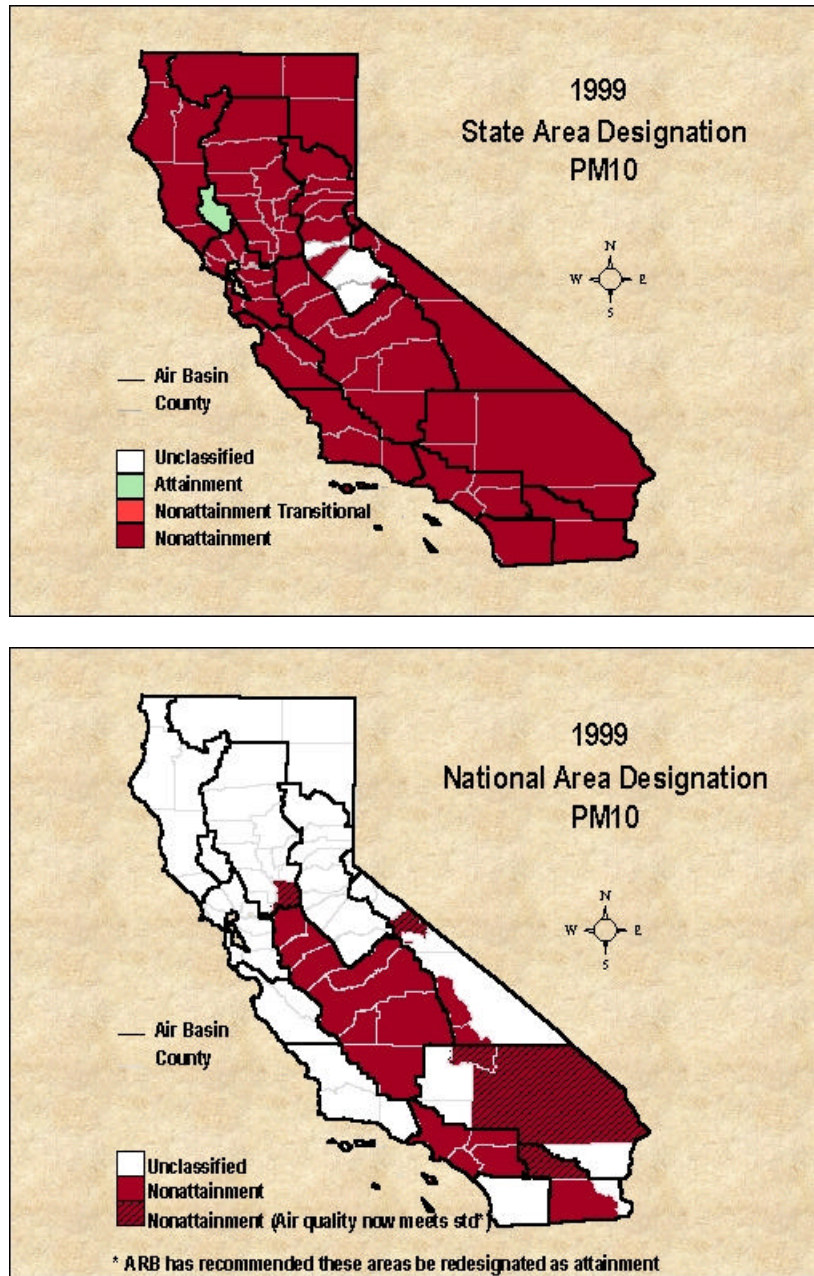
* Measured days are those days that an actual measurement was greater than the level of the state daily standard (50 micrograms per cubic meter) or the national daily standard (150 micrograms per cubic meter). Measurements are typically collected every six days. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

** The 3-year statistics include data from the listed year and the two years before the listed year.



Source: California Air Resources Board 1999

**FIGURE 8 STATE AND NATIONAL AREA CARBON MONOXIDE
ATTAINMENT/NONATTAINMENT AREAS**



Source: California Air Resources Board 1999

FIGURE 9 STATE AND NATIONAL AREA PM₁₀ ATTAINMENT/NONATTAINMENT AREAS

Nitrogen Dioxide

The levels of Nitrogen Dioxide are below the State and Federal levels. The Nitrogen Dioxide is in attainment level in the project area.

**Table 14 Highest 4 Daily Nitrogen Dioxide Measurements and Annual Nitrogen Dioxide Statistics
At Lancaster-W Pondera Street
parts per million (ppm)**

	1997		1998		1999	
High	Oct 17	0.071	Nov 16	0.077	Nov 4	0.083
2nd High	Sep 22	0.061	Oct 11	0.069	Jan 11	0.078
3rd High	Mar 17	0.060	Oct 21	0.063	Nov 2	0.074
4th High	Sep 23	0.058	Jan 26	0.059	Nov 5	0.068
*Days > State Standard		0		0		0
*Days > Nat'l Standard		0		0		0
**Year Coverage		89		93		28

Source: California Air Resource Board

* The number of days at least one measurement was greater than the level of the state hourly standard (0.25 parts per million). The number of days above the standard is not necessarily the number of violations of the standard for the year.

** Year Coverage is an indicator of how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available.

3.6 Hazardous Waste

3.6.1 Storage Tanks

The Initial Site Assessment found that there are 9 unique locations that include Underground Storage Tanks (UST), leaking underground storage tanks (LUST), and above-ground storage tanks (AST) located along State Route 138. Federal State and local environmental and health regulatory agency records have been checked to see if any known hazardous waste sites are in the vicinity of the project area. The Initial Site Assessment identified four Leaking Underground Storage Tanks (LUST) which are within one-eighth mile of the project right of way. Also in the project vicinity the ISA used the Hazardous Waste and Substance Site List (Cortese List) to identify potential sites. Their findings suggest that there are three listed Cortese sites within one-eight mile (0.2 km) of the project right-of-way, as well as a Resources Conservation and Recovery Act (RCRA) large generator for the project area. The following are sites that were identified for potential hazardous waste.

- Concrete and metal piping remains located on the southwest corner of Four Points
- Valco Transmission 78226 Pearblossom Highway- UST
- C-Bar-B plaza (Littlerock Liquor and Gas), 8063 Pearblossom Highway-UST
- Black Gold Oils Company Station #147, 8157 Pearblossom Highway- LUST/Cortese List, UST
- Pacific Bell, 9550 Pearblossom Highway-RCRA large generator-LUST,AST

- Jerry's Minute Mart, 12515 Pearblossom Highway-LUST/Cortese,UST
- Kwik Tune Lube and Oil , 13100 Pearblossom Highway- UST
- Buchanan Union 76 (Jack's Gas and Mini Mart), 17326 Pearblossom Highway-UST
- Unidentified residential property at Largo Vista Road- Drums, AST

It has also been found that in four areas between Post Mile 59.8 (96.23 km) to 69.5 (11.84 km) there are concentrations of lead located 0.5 (0.15 m) to 1.5 feet (0.46 m) below the surface level that are at a hazardous level. It is estimated that approximately 222 cubic yards of soil at the site are impacted with hazardous concentrations of lead and will require special handling.

3.7 Land Use Setting

The communities of Littlerock, Pearblossom, Llano and the City of Palmdale are located in the high desert region of Los Angeles County approximately 60 (96.56 km) miles from downtown Los Angeles. The City of Palmdale was incorporated August 24, 1962 and the communities of Littlerock, Pearblossom and Llano are unincorporated areas of Los Angeles within the Antelope Valley. The project limits encompass an area between the foothills of the San Gabriel and Sierra Pelona Mountains and the Mojave Desert to the north and east.

The land use along State Route 138 varies as you go through the communities of Littlerock, Pearblossom, Llano and the City of Palmdale. The City of Palmdale has urban residential, non-urban residential, commercial, industrial and open space land use. The land use in the Palmdale area has been focused primarily on the aerospace industry. The city's development pattern has been shaped by the existing constraints to growth within the city's own planning area. To the east, Little Rock Wash forms a natural boundary between urban residential development in Palmdale and rural residential uses in the unincorporated community of Littlerock.. Other established rural communities in or adjacent to the project area have also indicated their desire to maintain lower densities and rural lifestyles. Also located on State Route 138 in the vicinity of 72nd Street East and 75th Street East (PM 53.95, KP 86.82) and the California Aqueduct and 96th street (PM 56.17, KP 90.39) are agricultural areas that support crops that are located on Prime Farmland.

3.7.1 Housing

The 1990 census shows the number of housing units in the communities that are in the project area. The City of Palmdale had 24,418 housing units. In January 1995, the California Department of Finance's Demographic Research Unit estimated that there were 35,780 housing units in the City of Palmdale. In five years the increase of housing units was 46.5%. The large percentage increase is due to an increase in the number of single-family homes.

Table 15 shows the number of Housing Units located in the communities in the project area.

Table 15 Housing Units for 1990

Dwelling Units	Palmdale	Littlerock	Pearblossom	Llano
Total Dwelling Units	24,418	422	447	543
Single Family Detached	16,293	382	-	-
Person/Household	3.13	3.27	-	-

Source: US Census Bureau 1990

3.7.2 Commercial

In the 1960's, the City of Los Angeles Department of Airports began to acquire landholdings in the Palmdale area to the east and north of the Airport Corridor Specific Plan area totaling approximately 17,500 acres (7082 hectares), for the purpose of developing a second international airport to supplement the increasingly burdened capacities of Los Angeles International Airport (LAX). Plans for the new airport have been discussed, and modified many times over the past few years and the project remains a future potential. A regional airport would require improved ground transportation.

3.7.3 Industrial

Aerospace

Aerospace and related industries dominate the industrial and business sectors of Palmdale. Companies that have their facilities in Palmdale include Northrop Corporation, McDonnell Douglas Corporation and the Lockheed Corporation. Also Rockwell International facilities are located on land that is leased from the Los Angeles City Department of Airports.

Mining

Mining is another industry that is prominent in the Palmdale and surrounding communities. There are sand and gravel mining operations in the City of Palmdale and Little Rock Wash. There are six mining operations located along the Little Rock Wash on the eastern edge of the City. Based on California State Mining and Geology Board Guidelines for Mineral Resource Zones (MRZ) the Palmdale Production-consumption region falls into MRZ-2 category and extends over 37 square miles within the general area of Little Rock Wash. In addition, there are six concrete batching operations, three asphalt batching operations and one concrete pipe manufacturer located within the Little Rock Wash Area.

3.7.4 Farm Land

The Farmland Protection Policy Act (FPPA) protects land that is identified as prime, unique and other farmland of statewide or local importance. Within the project area, prime farmland areas occur along the southern side of State Route 138 in the vicinity of 75th Street East and along the north side of the highway east of 96th Street East. Prime farmland is land that has the best combination of physical and chemical characteristics for producing agricultural crops and may include land currently used as cropland, pastureland, rangeland or forestland. The major crops grown in this area are onions, peaches and carrots. See Figure 10 and 11.

3.8 Socioeconomic Characteristics

3.8.1 Economics

Economic and population growth in the Antelope Valley have rapidly accelerated in the past decade. Southern California Association of Governments (SCAG) predicts high growth rates (approximately 5 % per year) for the Palmdale area with the presumption that aerospace industry activity will increase. There has been extensive growth in population, housing, and employment.

The communities of Palmdale, Littlerock, Pearblossom and Llano are all situated on State Route 138 in the Antelope Valley. This area historically was dependent on agriculture for its economy but with growing populations and rising water costs the focus has shifted from agriculture towards commercial

and industrial businesses. Palmdale has a history with the aerospace industry. The City of Palmdale is the home for such companies as Northrop Grumman, Boeing and Lockheed Martin. Even with the recession of the early 1990's that affected the aerospace and defense industry. Palmdale has been able to recover with new jobs in the manufacturing field. The community of Littlerock still has active agriculture with the production of such crops as peach, pear, apple and cherry. Palmdale has designated 17,500 acres (7082 hectares) as the Palmdale Regional Airport owned by the City of Los Angeles Department of Airports. Also there are approximately 34% of the Palmdale residents that commute to jobs outside of the Antelope Valley. The majority of these people are employed within the San Fernando Valley or the Los Angeles Basin.

The smaller communities along State Route 138 are supported by a variety of small businesses and also by the traffic that passes along it on its way to the commercial and industrial businesses in more developed areas. The 1999 annual sales tax revenue for the City of Palmdale is \$7.5 million dollars.

Table 16 shows the Median Family Income based on the 1990 census.

Table 16 Median Family Income by Community compared to Los Angeles County

Income	Palmdale	Littlerock	Pearblossom	Llano	Los Angeles County
Median	\$45,225	\$41,912	\$45,547	\$38,807	39,035
% Below Poverty	8.9%	10.3%	-	-	15.1%

Source: US Census Bureau 1990

Table 17 describes the Labor Market-Industry that is located in the Antelope Valley with a breakdown of the numbers in the workforce.

Table 17 Labor-Market Industry

Occupation	# of Workers
Agriculture	750
Construction	2,740
Finance, Real Estate & Banking	5,434
Government	14,500
Manufacturing	18,800
Mining	809
Services	31,200
Transportation, Communication & Utilities	4,400
Wholesale/Retail Trade	4,400

Source: Greater Antelope Valley Economic Alliance 1999

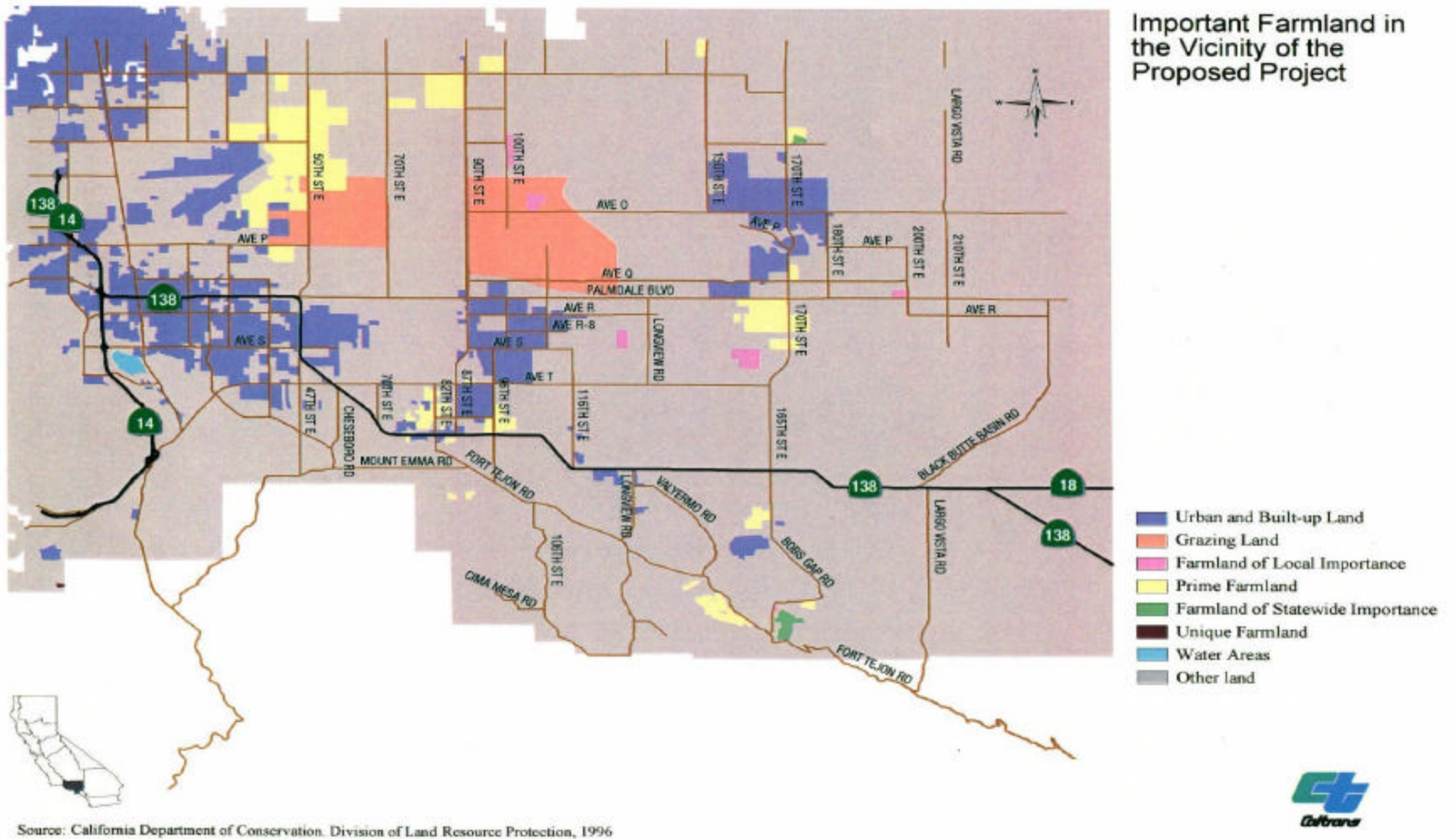


FIGURE 10

IMPORTANT FARMLAND IN THE VICINITY OF THE PROPOSED PROJECT

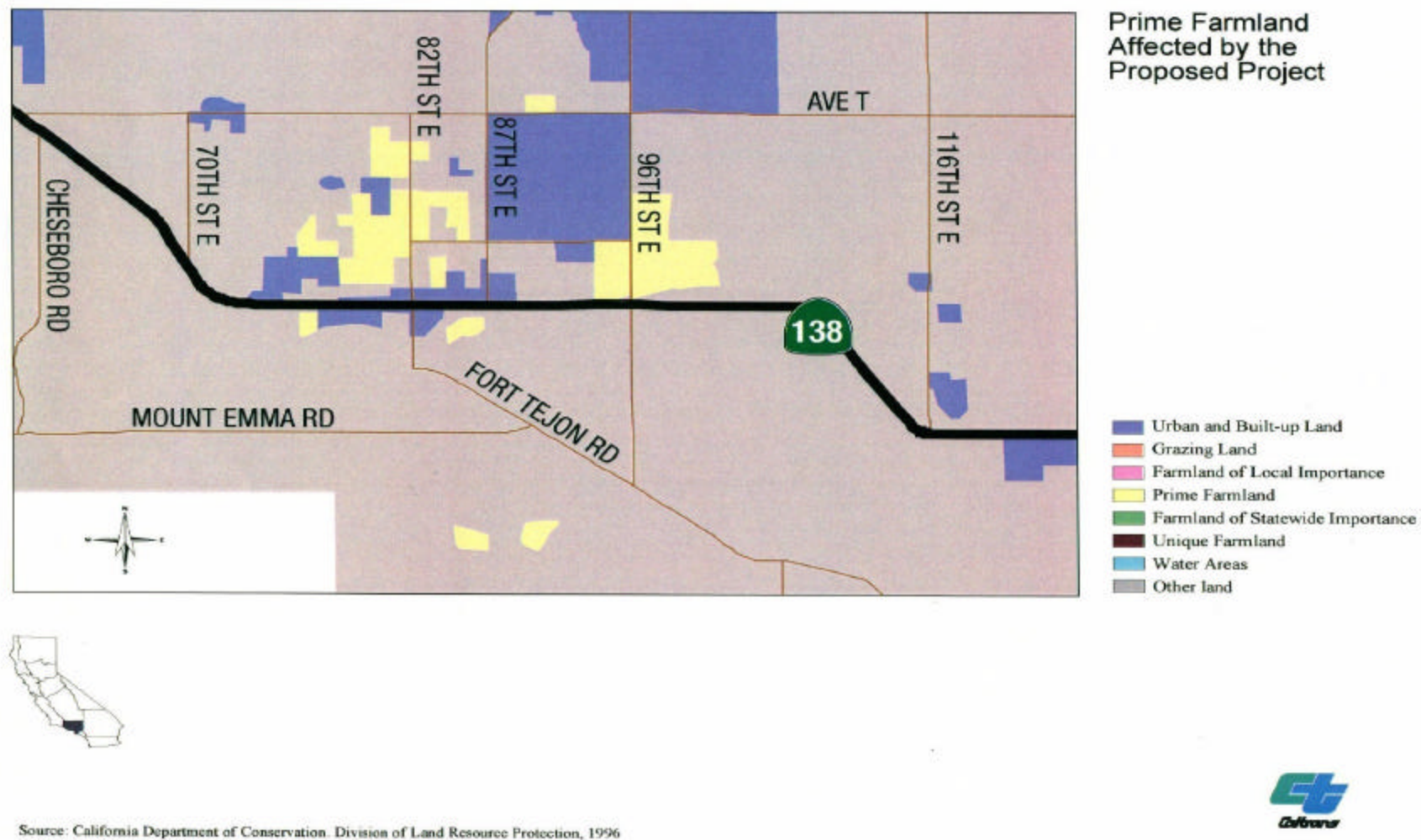


FIGURE 11 PRIME FARMLAND AFFECTED BY THE PROPOSED PROJECT

3.8.2 Population

Current trends in the Antelope Valley indicate that the population is increasing in large numbers and there will be an increase in the number of houses built. The construction of homes in the Antelope Valley is a large part of the economy. Between 1997-1998 a total of 394 homes were built in Palmdale.

Table 18 displays the regional demographics for all the communities in the proposed project site.

Table 18 Regional Demographics

	Palmdale	Littlerock	Pearblossom	Llano	Los Angeles County
Population	68,842	1,320	1,106	1,204	8,863,164
Median Age	27.6	28.3	-	-	30.7
Married Couples	65.4%	66.8%	35.4%	35.6%	48.7%
65 & over	4.8%	6.0%	16.2%	21.8%	9.7%

Source US Census Bureau 1990

Table 19 compares population trends by city and areas including Los Angeles and Kern County. From 1990 to 1997 the City of Palmdale and the Antelope Valley Area have grown considerably. The population of City of Palmdale has grown nearly 60% in the last seven years with an average annual increase of more than 8%. The total Antelope Valley growth is nearly 33% and the average annual increase for the last seven years is more than 4%.

Table 19 Antelope Valley Region Population Trends by City and Area

				Avg. Annual % Increase	Avg. Annual % Increase
Antelope Valley Locations	4/1/90	1/1/93	1/1/97	1990/93	1993/97
South Eastern Kern	32,876	36,363	41,451	2.68	4.05
Unincorporated LA	74,434	76,765	85,132	1.13	2.62
City of Lancaster	97,291	107,700	123,200	3.43	3.42
City of Palmdale	68,842	89,700	114,900	10.07	6.39
Total Antelope Valley	273,443	309,528	364,683	4.60	4.18
Los Angeles Co.	8,863,164	9,158,400	9,488,200	1.20	0.78
Kern County	543,477	603,300	628,200	3.85	1.03
Antelope Valley as a % of Combined Kern and LA Counties	2.91	3.17	3.6		

Source: Greater Antelope Valley Economic Alliance 1999

Table 20 compares the Education Demographics of the communities in the project area with that of Los Angeles County.

Table 20 Education Demographics

Education	Palmdale	Littlerock	Pearblossom	Llano	Los Angeles County
% High School Grad	28.3	18.2	32.6	27.1	70.0
% College Grad	13.3	8.40	5.10	12.6	22.3

Source: US Census Bureau 1990

Table 21 shows the total ethnic population for 1990 in the Antelope Valley Communities that are located on State Route 138 in the proposed project area compared to Los Angeles County.

Table 21 Ethnic Population in Antelope Valley Communities

Ethnic Population	Palmdale	Littlerock	Pearblossom	Llano	Los Angeles County
White	36,947	639	871	847	1,738,602
Hispanic	15,154	402	173	276	3,306,116
Asian / Pacific Islander	3,030	19	-	26	955,329
African-American	4,398	53	-	184	990,406
American Indian	648	10	26	30	43,689
Other	8,665	197	71	59	1,829,022
Total	68,842	1,320	1,141	1,422	8,863,164

Source: US Census Bureau 1990

3.9 Public Services & Facilities

The public utilities include electrical power, natural gas, telephone service, cable television services and communication services. Electricity is served to the county through Southern California Edison Company. The Southern California Gas Company provides gas service to Palmdale and the surrounding communities. Telephone services are provided by Pacific Bell and General Telephone Company of California (GTE). The Palmdale Water District and the Littlerock Creek Irrigation District provides the water service in the area. There are three post offices directly located within the project vicinity on State Route 138:

- 7727 Pearblossom Highway (Northern side of State Route 138)
- 12302 Pearblossom Highway (Southern side of State Route 138)
- 17234 Pearblossom Highway (Southern side of State Route 138)

Hospital service is provided by Palmdale Hospital Medical Center, which provides 24-hour emergency service. Sewer service to the City of Palmdale is provided by the Los Angeles County Sanitation District Number 20. Water treatment is provided by Palmdale Water District treatment plant. Six disposal companies that use the Antelope Valley Landfill for solid waste disposal serve the City of Palmdale. Police protection is provided by the Los Angeles County Sheriff's Department with additional services provided by the California Highway Patrol (CHP). The CHP provides traffic enforcement for the unincorporated area and will provide emergency assistance with respect to general law enforcement when necessary, as does the Los Angeles County Sheriff's department. The

Los Angeles County Fire Department provides fire protection for the project area. The proposed project area is serviced by two fire stations.

- Station number 92 located in Littlerock at 8905 East Avenue U
- Station number 79 located in Pearblossom at 33957 Longview road

3.9.1 Schools

Alpine Elementary is within the project vicinity and is part of the Keppel Union Elementary School District. Keppel Union Elementary School District is an independent school district not in the Los Angeles School District. Alpine Elementary provides education for children in grades K through 6. Table 22 describes the ethnic composition of the school.

Table 22 Ethnic Population of Alpine Elementary School 1998-1999 School Year

Race/Ethnicity	# of Students	% of School Population
White	299	52.8
African-American	19	3.4
Hispanic/Latino	234	41.3
American Indian or Alaskan Native	7	1.2
Asian	1	0.2
Filipino	3	0.5
Pacific Islander	3	0.5
Total	566	100.0

Source: California Department of Education 1998-1999 School Year/Educational Demographics Unit

3.10 Transportation

State Route 138 is a regional arterial highway that connects to State Route 14 and State Route 18. State Route 138 extends from the San Bernardino County line to Sierra Highway, where it branches into State Route 18 and Antelope Highway. State Route 138 within the project limits between PM 51.4 (KP 82.7) and PM 69.4 (KP 111.69). State Route 138 consists of two 12-foot (3.65 m) lanes, one in each direction, with a broken centerline in some areas to allow for passing. State Route 138 has a high percentage of truck traffic, 14% in the vicinity of Avenue T and 7% near the junction of Route 138/18.

Bus service within the project area is provided through the Antelope Valley Transit Authority and serves the City of Palmdale and the communities of Littlerock and Pearblossom.

The Southern Pacific Railroad operates two rail lines that cut through the City of Palmdale and through the outlying communities. The rail traffic through the city and communities is used only for freight.

There is a proposed Metrolink station in the City of Palmdale, which would connect Palmdale with the rest of the Antelope Valley Metrolink Line that runs to Los Angeles.

3.11 Historic & Cultural Resources

The area around the project site was once home to such cultural groups as the Kitanemuk, Kawaiisu, Tatavium and the Serrano/Vanyume.

Between the intersection of the Pearblossom Highway, California Aqueduct and the Little Rock Wash there are paleontology records that show there are fossil sites that have vertebrate paleontology. The sites have produced fossil horse teeth, mammoth tooth fragments, and rabbit, bird, carnivore and rodent tooth and bone fragments

Situated on State Route 138 sixty miles north of Los Angeles is the town of Llano where the Llano del Rio Cooperative colony was founded on approximately 2100 acres bisected by State Route 138. The colony was founded in 1914 by Job Harriman to promote a Socialist Utopian Society and as a “haven from capitalism and competition”. The colony started to take shape in May of 1914 when the first group of settlers arrived at the site. The first buildings were constructed of canvas and wood with a few buildings made from rock, adobe and mortar. As time progressed they started to build more complicated structures such as a two-story hotel, post office, boot factory and a cannery. The population of the colony increased gradually to almost a 1,000 people but experienced a decrease in population starting in 1917 due to internal conflicts within the colony and the lack of assistance from Job Harriman. In 1918 the colony went into receivership and there was a mass exodus to a new site in Louisiana. The State of California recognizes the site of Llano del Rio Cooperative colony as a historical landmark number 933. Also the colony is eligible for the National Register of Historic Places. This site is one of the most important non-religious Utopian experiments in western American history. See Figure 6.

3.12 Noise Analysis

The project area on State Route 138 must meet the noise criteria set forth by the Federal Highway Administration (FHWA) which is that noise levels must not exceed 67 decibels (dBA), the maximum allowable exterior noise level or 52 decibels (dBA), the maximum allowable interior noise levels for residential areas.

The Traffic Noise Analysis Protocol contains Caltrans noise policies, which fulfill the highway noise analysis and abatement/mitigation requirements stemming from the following State and Federal environmental statutes:

- California Environmental Quality Act (CEQA)
- National Environmental Policy Act (NEPA)
- Title 23 United States Code of Federal Regulations, Part 772 “Procedures for Abatement of Highway Traffic Noise and Construction Noise” (23 CFR 772)
- Section 216 et seq. of the California Streets and Highways Code.

Policies, procedures and practices are provided in the Traffic Noise Analysis Protocol for use by agencies that sponsor new construction or reconstruction of transportation projects. The Traffic Noise Analysis Protocol is designed to evaluate the potential traffic and construction generated noise impacts, and determines reasonable and feasible noise abatement/mitigation for the project.

A traffic noise impact will also occur when predicted noise levels within the project area approach within 1 dBA, or exceed the Noise Abatement Criteria as seen in Table 23. See Appendix B Noise Receptor Location Aerial Maps.

Table 23 Noise Criteria

Activity Category	NAC, Hourly A-Weighted Noise Level, dBA L _{eq} (h)	Description of Activities
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above. Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
D	--	Undeveloped lands
E	52 Interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: Caltrans Traffic Noise Analysis Protocol 1998

The current noise levels at the Project Site are shown in Table 24.

Table 24 Existing Noise Levels in Project Area

LOCATION	DATE	START TIME	Leq avg. (dBA)	FUTURE NOISE LEVELS	** (NAC) dBA	**NOISE IMPACT
LOCATION 1 Pearblossom at Little Rock Wash (PM 53.55) on the Westbound Side of the roadway, 30' from the edge of traveled way.	11/14/97	11:47:59	72.2	74.4	(B) 67	YES
LOCATION 2 Front Yard of 8026 Pearblossom Hwy, Pearblossom at 80th Street, on the Eastbound side of the traveled way	11/14/97	13:03:40	66.8	68.9	(B) 67	YES
LOCATION 3* Alpine School- located at Hwy 138 and 82nd Street.						
Room 1 - inside- door closed	12/30/97	15:15:45	42.5	44.7	(B) 67, (E) 52	NO
Room 1 - outside- door closed	12/30/97		66.1	68.3	(B) 67, (E) 52	NO
Room 6 - inside- door closed	12/30/97	15:49:24	41.5	43.1	(B) 67, (E) 52	NO
Room 6 - outside- door closed	12/30/98		65.2	67.2	(B)67, (E) 52	NO

*Note: The classroom windows are sealed and the rooms are air-conditioned.

The City of Palmdale also has noise generated by military aircraft traffic. Noise from military aircraft operations were recorded by the City of Palmdale at a maximum aircraft departure of 92 to 95 decibels. Approaching aircraft noise levels were recorded at 85 to 92 decibels.

3.13 Parks and Bicycle Facilities

3.13.1 Park

At one time there was a 46-acre proposed park located within the Community of Llano and within the boundaries of the 2100-acre Llano del Rio Colony site. The land is to the northwest corner of the State Route 138/175th street intersection, which is adjacent to State Route 138 in the project area. The County of Los Angeles Department of Parks and Recreation owns the land and it is zoned for light agricultural and commercial use and is no longer considered a feasible park site.

3.13.2 Equestrian Trails

Currently equestrian trails have not been formally designed for the project area, but extensive plans exist for many proposed trails. The Los Angeles County Department of Parks and Recreation has developed a Master Plan that identifies 5 equestrian trail crossings as of 1999. The locations of these crossings are along State Route 138 in the proposed project area and are located at:

- Littlerock Wash Bridge – trail crosses under east side of the bridge
- 96th St. East - at-grade crossing on the west side
- 121st St. East - at-grade crossing on the west side
- Big Rock Wash Bridge - trail crosses under west side of the bridge
- Largo Vista - at-grade crossing on the east side

Also the Antelope Valley Trails, Recreation and Environmental Council (AVTREC), which is an advisory group to the County Master plan has requested two additional at-grade crossings located at:

- 89th St. East
- 165th St. East

Figure 12 shows current and proposed equestrian trails in the project area.

3.13.3 Bicycle Lanes

In the proposed project area between Avenue T and State Route 138 there are no bicycle lanes. In the City of Palmdale General Plan and the Los Angeles County General Plan there are proposed plans that include a bicycle lane which would be in the project area. There are no plans to develop this bicycle lane. Implementation of the bicycle lane would be phased with other development in the specific area.

3.14 Scenic Resources

The scenic resources of the Antelope Valley include open space, landscaped corridors and viewsheds. The Godde Hills Road winds up the Portal Ridge Mountains and overlooks the entire Antelope Valley. The City of Palmdale has designated portions of the Pearblossom Highway as a Scenic Highway. The California Department of Transportation has not recognized State Route 138 as a Scenic Highway.

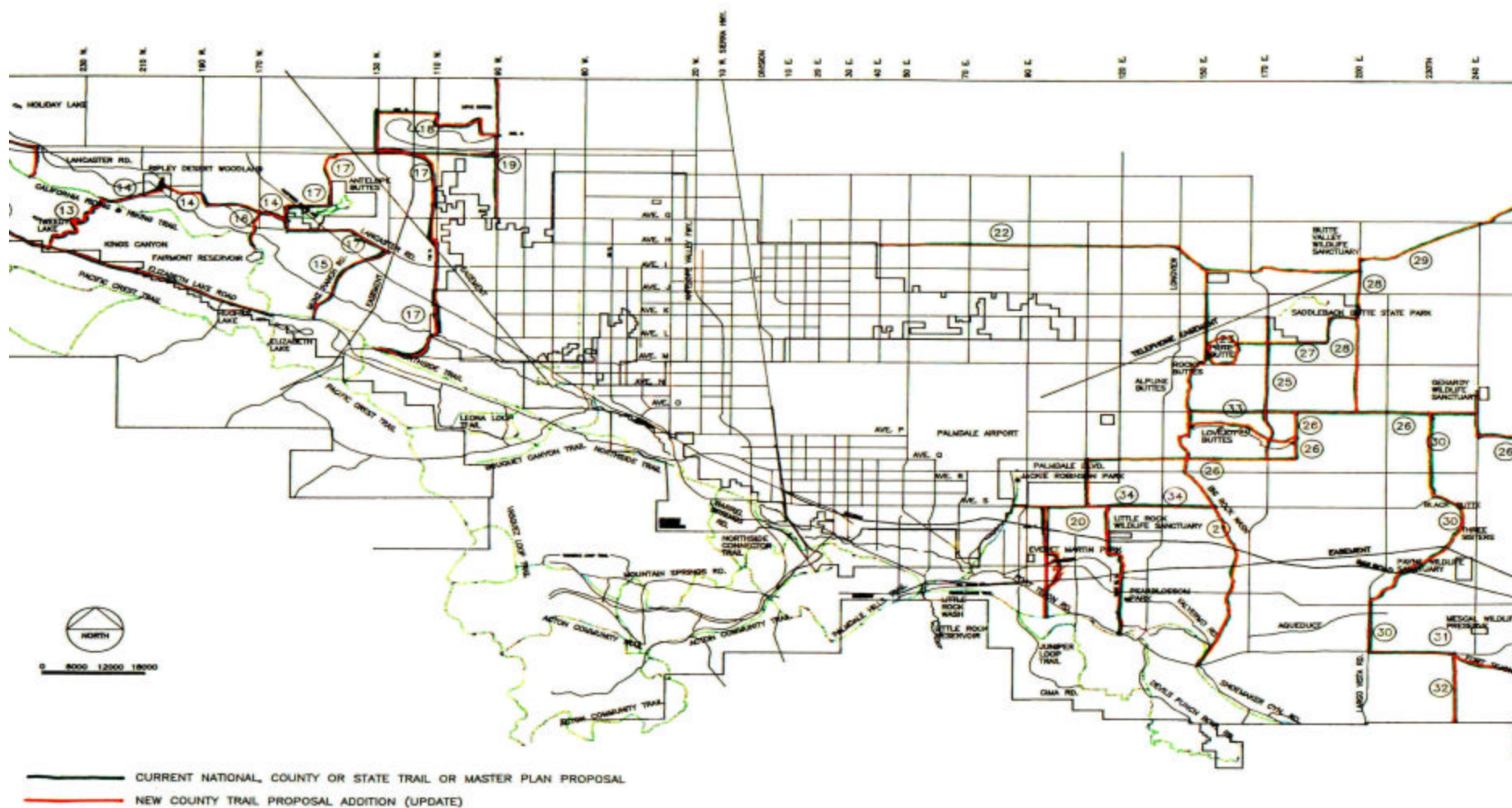


FIGURE 12 LOCATION OF EQUESTRIAN TRAILS IN PROJECT AREA